

WHAT IS CLAIMED IS:

1. A battery box for a railway vehicle comprising:
  - a casing mounted on a car body of the railway vehicle;
  - a lid member configured to open and close an opening of the casing;
  - a movable tray equipped with a battery and stored within the battery box, the movable tray being capable of being pulled out through the opening;
  - a connector provided on the movable tray;
  - a battery wire configured to electrically connect the connector to the battery;
  - a receiving connector provided on the casing, the connector being separably connected to the receiving connector;
  - a wire provided within the casing and configured to electrically connect the receiving connector to a wire provided in the car body;
  - a guide means configured to guide the movable tray to cause the connector to be connected to the receiving connector; and
  - an aligning means provided on the movable tray and the casing and configured to align the connector and the receiving connector when the movable tray is stored in the casing.
2. The battery box for a railway vehicle according to Claim 1, wherein the guide means is comprised of a guide rail provided within the casing and having a protruding portion extending along a longitudinal direction of the rail, the protruding portion having a

substantially-inverted-U shaped cross-section, and a circumferential concave portion engageable with the protruding portion of the guide rail,

the aligning means is comprised of a guide pin provided on one of the movable tray and the casing and a pin receiver provided on the other of the movable tray and the casing, the guide pin being engageable with and disengageable from the pin receiver, the battery box further comprising:

a first locking device provided on the movable tray and the casing and configured to lock the movable tray to the casing upon the connector being connected to the receiving connector.

3. The battery box for a railway vehicle according to Claim 2, wherein the pin receiver is supported by the other of the movable tray and the casing so as to be displaceable in a moving direction of the movable tray and in a direction perpendicular to the moving direction.

4. The battery box for a railway vehicle according to Claim 2, further comprising:

a positioning stopper provided within the casing and configured to restrict a front end position of the movable tray when storage of the movable tray within the battery box is completed; and

an elastic member provided at a rear end portion of the movable tray and configured to elastically press an inner face of the lid member with the lid member closed after the movable tray has been stored in the battery box.

5. The battery box for a railway vehicle according to Claim 1, wherein the lid member is locked to an up-down table of a table lift that carries the movable tray placed thereon by means of a second locking device,

the second locking device is comprised of an engagement receiver provided on the lid member and an engagement member provided on the up-down table so as to be engageable with and disengageable from the engagement receiver,

the lid member has a stopper provided on the inner face thereof to be protrusible and retractable, the stopper being configured to inhibit the movable tray from falling off the lid member provided horizontally in an open state, and a spring member configured to bias the stopper to protrude, and

the table lift has a release member configured to reduce an amount of protrusion of the stopper by engagement with the stopper against a spring force exerted by the spring member when the up-down table set substantially as high as the lid member provided horizontally in an open state is locked to the lid member.